## Abstract

Modal Discriminating and Linearly Polarized Fiber Lasers

A single core 35, 50 or a plurality of cores arranged in rings 21, 28, 29 around a central core 20, 27, or in an array 42, are provided with either or both of (a) a modal discrimination characteristic, including gain, index of refraction and cross sectional area, which is greatest in the center of the core or the array, and lowers outwardly therefrom, and (b) an oblong cross section, thereby to provide either or both of (c) a bright laser beam of the fundamental in-phase supermode, and/or (d) a linearly polarized output beam.

5